

GenCore version 5.1.4.p5.4578
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OM protein - nucleic search, using frame_plus_p2n model

Run on: April 5, 2003, 03:01:37 ; Search time 74 Seconds
(without alignments)
1823.483 Million cell updates/sec

Title: US-09-847-081B-2
Perfect score: 2270
Sequence: 1 MSKSVALLWVSTSEVSG.....IAYAKSLVPPNTSSPLAKT 440

Scoring table:
BLOSUM62
Xgapop 10.0, Xgapext 0.5
Ygapop 10.0, Ygapext 0.5
Fgapop 6.0, Fgapext 7.0
Delop 6.0, Delext 7.0

Searched: 441362 seqs, 153338381 residues

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters:

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-LOPEXT=0 -UNITS=bits -START=1 -END=1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15
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-WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -Fgapop=6 -Fgapext=7
-YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : Issued Patents_NA.*
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq.*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq.*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq.*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq.*
5: /cgn2_6/ptodata/1/ina/PTCUS_COMB.seq.*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1826	80.4	1826	1	US-08-579-667-5
2	1799	79.3	1814	1	US-08-579-667-7
3	1774	78.1	1795	1	US-08-579-667-1
4	1762	77.6	1316	1	US-08-579-667-3
5	1750	77.1	1239	4	US-09-180-342-2
6	1744	76.8	1239	4	US-09-180-342-1
7	1732	76.3	1646	1	US-07-995-350-2
8	1732	76.3	1646	1	US-08-300-582-2
9	442	19.5	749	1	US-08-579-667-9
10	364	16.0	1198	1	US-08-095-726-5
11	364	16.0	1198	1	US-08-096-043-5
12	364	16.0	1198	1	US-08-093-577-5

13	364	16.0	1198	1	US-08-096-623A-5
14	361.5	15.9	1083	1	US-08-331-004A-1
15	361.5	15.9	1083	5	PCT-US95-13937A-1
16	350.5	15.4	1232	4	US-08-908-758-1
17	349.5	15.4	6918	1	US-07-783-705A-13
18	338.5	14.9	891	1	US-07-783-705A-11
19	326	14.4	8625	4	US-08-980-832-1
20	326	14.4	11233	4	US-08-980-832-27
21	324	14.3	908	3	US-08-660-645A-4
22	324	14.3	908	3	US-09-298-718-4
23	324	14.3	908	4	US-09-546-969-4
24	176.5	7.8	947	1	US-08-096-623A-16
25	176.5	7.8	947	1	US-08-096-623A-17
26	174	7.7	2470	4	US-09-091-725-18
27	174	7.7	2546	4	US-09-091-725-12
28	170	7.5	405	4	US-09-060-756-345
29	159	7.0	3550	4	US-08-091-725-22
30	136.5	6.0	2054	1	US-08-351-981-1
31	121	5.3	1349	1	US-08-351-981-5
32	120	5.3	1326	4	US-09-625-188-3
33	116	5.1	1642	1	US-08-310-693-1
34	116	5.1	1642	5	PCT-US95-11280-1
35	112.5	5.0	114	2	US-08-260-546-10
36	112.5	5.0	114	4	US-09-436-088A-12
37	111.5	4.9	346	4	US-09-060-756-427
38	107.5	4.7	425	4	US-09-060-756-545
39	104.5	4.6	1479	2	US-08-351-981-3
40	101	4.4	1023	2	US-08-757-653-175
41	101	4.4	1023	2	US-08-823-516-78
42	101	4.4	1023	3	US-08-759-038-114
43	101	4.4	1023	3	US-08-758-314-114
44	100.5	4.4	49377	1	US-08-764-233A-1
45	97	4.3	20235	1	US-07-642-734C-3

ALIGNMENTS

RESULT 1
US-08-579-667-5
; Sequence 5, Application US/08579667
; Patent No. 5705624
; GENERAL INFORMATION:
; APPLICANT: Fitzmaurice, Wayne P.
; APPLICANT: Hellmann, Gary M.
; APPLICANT: Grill, Laurence K.
; APPLICANT: Kumagai, Monto H.
; APPLICANT: Della-Cioppa, Guy R.
; TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN
; TITLE OF INVENTION: PHYTOENE BIOSYNTHESIS
; NUMBER OF SEQUENCES: 19
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Virginia C. Bennett
; STREET: 1211 East Morehead Street, PO Drawer 34009
; CITY: Charlotte
; STATE: No. 5705624th Carolina
; COUNTRY: USA
; ZIP: 28234
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/579.667
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Bennett, Virginia C.
; REGISTRATION NUMBER: 37,092
; REFERENCE/DOCKET NUMBER: 627-196
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 919-420-2200
; TELEFAX: 919-881-3175

; INFORMATION FOR SEQ ID NO: 5:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 1826 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: cDNA

; FEATURE:

; NAME/KEY: CDS

; LOCATION: 367..1596

; US-08-579-667-5

Alignment Scores:

Pred. No.: 1,56e-204 Length: 1826

Score: 1826.00 Matches: 362

Percent Similarity: 88.61% Conservative: 27

Best Local Similarity: 82.46% Mismatches: 21

Query Match: 80.44% Indels: 29

DB: 1 Gaps: 4

US-09-847-081b-2 (1-440) x US-08-579-667-5 (1-1826)

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 Db 367 ATGCTGTTGCTGTTATGGTTGTTTCACT--TGTAGGTTCTCAATGGGACAGGA 423
 Qy 23 LeuLeuAspSerValArgGluGlyAsnArgValPheValSerSerArgPheLeuAlaArg 42
 Db 424 TTCTTGGATTTCAGTAAGGAGGAGAAACCGGTTTGTACTCGTCG-----AGG 471
 Qy 43 AspArgAsnLeuMetTrpAsnGlyArgGlyLeuGlyValSerGlnArgTrpAsnPhe 62
 Db 472 CATAGAAATTTAGTGTGCAATGAGAGAAATCAAAAGAGGTGTGAAACAAAGGTGAATTT 531
 Qy 63 GlySerLeuIleAlaAspProArgTyrSerCysLeuGlyGlySerArgThrGluLysGly 82
 Db 532 GGT-----534
 Qy 83 SerThrPheSerValGlnSerSerLeuValAlaSerProAlaGlyGluMet---ThrVal 101
 Db 535 -----TCTGTACGGTCTGCGATGTTGCTGCTACCAACGCGGAGAAATGGCGCAATG 585
 Qy 102 SerSerGluLysLysValTyrAspValValLeuLysGlnAlaAlaLeuValLysArgGln 121
 Db 586 ACATCAGAACAGAGGTTTATGATGTGTATGTAAGCAAGCAGCTTTAGTGAAGGCGAG 645
 Qy 122 LeuArgSerThrAspAspLeuGluValLysProAspIleValValProGlyAsnLeuGly 141
 Db 646 CTGAGACTACTGATGATTAGAAAGTGAAGCGGAGATCCCTCTCCCGGGAATTTGAGC 705
 Qy 142 LeuLeuSerGluAlaTyrAspArgCysGlyGluValCysAlaGluTyrAlaLysThrPhe 161
 Db 706 TTGTTAAGTGAAGCATATGATAGGTGTAGTGAAGTATGCGCAGAGTATGCAAAAGACATT 765
 Qy 162 TyrLeuGlyThrLysLeuMetThrProGluArgArgAlaIleTrpAlaIleTyrVal 181
 Db 766 TACTTAGAAGTATGCTATGCTTCCAGAGAGAGGGCTATTGCGGCAATATATGTA 825
 Qy 182 TrpCysArgArgThrAspGluLeuValAspGlyProAsnAlaSerHisIleThrProGln 201
 Db 826 TGGTGACGAGACAGATGAATGTTGATGCGCGGATGATGATCATATTTACTCCACAA 885
 Qy 202 AlaLeuAspArgTrpGluThrArgLeuGluAspIlePheSerGlyArgProPheAspMet 221
 Db 886 GCCTTAGATAGTGGGAGACCGCTGGAAGATGTTTTCAGTGGCGGCCATTTCATATG 945
 Qy 222 LeuAspAlaAlaLeuSerAspThrValSerArgPheProValAspIleGlnPropheArg 241
 Db 946 CTCGATGCTGTTGTCCGATGACTGTTTCCAGCTTCCAGTTGATTTACCCCGCTTCAGA 1005
 Qy 242 AspMetIleGluGlyMetArgMetAspLeuTrpLysSerArgTyrLysThrPheAspGlu 261
 Db 1006 GATATGATTGAAGGATGCGGTATGGACTTGGAGGAGTCAAGATACAGAAACTTTGATGAG 1065

Qy 262 LeuTyrLeuTyrCysTyrTyrValAlaGlyThrValGlyLeuMetSerValProValMet 281
 Db 1066 CTATACCTATATGTTATTACGTTGCTGCTGGTACGGTTGGTTGATGAGTTTCCCAATTATG 1125
 Qy 282 GlyIleAlaProGluSerLysAlaThrThrGluSerValTyrAsnAlaAlaLeuAlaLeu 301
 Db 1126 GGTATTGCACCTGATTCAAGGCAACACAGAGAGTGTATATATGCGAGCTTTGGCTTTA 1185
 Qy 302 GlyLeuAlaAsnGlnLeuThrAsnIleLeuArgAspValGlyGluAspAlaArgArgGly 321
 Db 1186 GGGATCGCAATCAACTAACCACATACACTCAGAGATGTGCGGAGAGATGCCAGAGAGGA 1245
 Qy 322 ArgValTyrLeuProGlnAspGluLeuAlaGlnAlaGlyLeuSerAspGluAspIlePhe 341
 Db 1246 AGAGTCTACTTACCTCAAGATGAGTTAGCAGAGCAGGCTCTCTCGACAAATGACATTTT 1305
 Qy 342 AlaGlyArgValThrAspLysTrpArgAsnPheMetLysGlnIleGlnArgAlaArg 361
 Db 1306 GCTGAAAGTGACTGATAAATGGAGAGCTTTATGAAGAGCAAAATCCAGAGGCGCAAG 1365
 Qy 362 LysPheAspGluSerGluLysGlyValThrGluLeuAspSerAlaSerArgTrpPro 381
 Db 1366 AATCTTCGAGGAGGAGAGAGAGTGTGACCAACTGAGCTCAGCTAGTAGTGGCCT 1425
 Qy 382 ValLeuThrAlaLeuLeuLeuTyrArgLysIleLeuAspGluIleGluAlaAsnAspTyr 401
 Db 1426 GTATGGGCATCTTGTCTGTACCGCCAGATACTCGACGAGATTGAAGCCAATGACTAC 1485
 Qy 402 AsnAsnPheThrArgArgAlaTyrValSerLysProLysLysLeuLeuThrLeuProIle 421
 Db 1486 AACAACTTCAACAGAGAGAGCTTATGTGACAAACCAACCAAGCAAGCTAATTTCTTACCTATT 1545
 Qy 422 AlaTyrAlaLysSerLeuValProAsnArgThrSerSerProLeuAlaLys 439
 Db 1546 GCTTATGCAAAATCTTGTGCGCCCTACAGAACTCTTGTCACCTCTAGCTACAG 1600

RESULT 2

US-08-579-667-7

; Sequence 7, Application US/08579667

; Patent No. 5705624

; GENERAL INFORMATION:

; APPLICANT: Fitzmaurice, Wayne P.

; APPLICANT: Hellmann, Gary M.

; APPLICANT: Grill, Laurence K.

; APPLICANT: Kumagai, Monto H.

; APPLICANT: Della-Cioppa, Guy R.

; TITLE OF INVENTION: DNA SEQUENCES ENCODING ENZYMES USEFUL IN

; TITLE OF INVENTION: PHYTOENE BIOSYNTHESIS

; NUMBER OF SEQUENCES: 19

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Virginia C. Bennett

; STREET: 1211 East Morehead Street, PO Drawer 34009

; CITY: Charlotte

; STATE: No. 5705624th Carolina

; COUNTRY: USA

; ZIP: 28234

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/579,667

; FILING DATE:

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: Bennett, Virginia C.

; REGISTRATION NUMBER: 37,092

; REFERENCE/DOCKET NUMBER: 627-196

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 919-420-2200

; TELEFAX: 919-881-3175

REFERENCE/DOCKET NUMBER: 627-196

TELECOMMUNICATION INFORMATION:

TELEPHONE: 919-420-2200

TELEFAX: 919-881-3175

INFORMATION FOR SEQ ID NO: 3:

SEQUENCE CHARACTERISTICS:

LENGTH: 1316 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: cDNA

FEATURE:

NAME/KEY: CDS

LOCATION: 1..1239

US-08-579-667-3

Alignment Scores:

Pred. No.: 3,05e-197 Length: 1316
Score: 1762.00 Matches: 347
Percent Similarity: 87.04% Conservativity: 29
Best Local Similarity: 80.32% Mismatches: 28
Query Match: 77.62% Indels: 28
DB: 1 Gaps: 4

US-09-847-081B-2 (1-440) x US-08-579-667-3 (1-1316)

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QY 23 LeuLeuAspSerValArgGluGlyAsnArgValPheValSerSerArgPheLeuAlaArg 42
Db 58 TTCTGGATTCATCCGGAGGAAACCGGGTTTGTGTTGGTCG-----AGG 105
QY 43 AspArgAsnLeuMetTrpAsnGlyArgIleLysLysGlyArgGlnArgTrpAsnPhe 62
Db 106 CATAGGAATTAGTGTGCAATGATGAGAACACAGAGAGGTGTGGAACAATGTGGAAATTT 165
QY 63 GlySerLeuIleAlaAspProArgTyrSerCysLeuGlyGlySerArgThrGluLysGly 82
Db 166 GGT----- 168
QY 83 SerThrPheSerValGlnSerSerLeuValAlaSerProAlaGlyGluMet---ThrVal 101
Db 169 -----TCTGTAAGTCTGCTATGTTGGTGTACACCGCGGAGAAATGGCGAGATG 219
QY 102 SerSerGluLysLysValTrpAspValValLysGlnAlaAlaLeuValLysArgGln 121
Db 220 ACATCAGACAGATGTTTATGATGGTATTGTAACAACACAGCTTTAGTGAAGGGCAG 279
QY 122 LeuArgSerThrAspAspLeuGluValLysProAspIleValValProGlyAsnLeuGly 141
Db 280 TTGAGATCTACTGATGATTAGAGTGAAGCGGAGAGATCCCTCTCCCGGGAATTTGACC 339
QY 142 LeuLeuSerGluAlaTrpAspArgCysGlyGluValCysAlaGluTrpAlaLysThrPhe 161
Db 340 TTGTTGAGTGAGCATATGATAGGTGATGAGTATGTCAGAGTATGTCGAAGACATTT 399
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QY 182 TrpCysArgArgThrAspGluLeuValAspGlyProAsnAlaSerHisIleThrProGln 201
Db 460 TGGTGCAGGAGAACACGCAACTTGTGATGGCCCGCAATGCATCATATTACTCCACA 519
QY 202 AlaLeuAspArgTrpGluThrArgLeuGluAspIlePheSerGlyArgProPheAspMet 221
Db 520 GCCTTAGATAGTGGGAACCGGCTGGAAGATGTTTTCAGTGGGCGGCAATTTGACATG 579
QY 222 LeuAspAlaLeuSerAspThrValSerArgPheProValAspIleGlnProPheArg 241
Db 580 CTCGATGCTGCTTTGCCGATCTGTTCCAAAGTTTCCAGTTTCCAGTTTCCAGCGGTTT 639

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QY 242 AspMetIleGluGlyMetArgMetAspLeuTrpLysSerArgTyrLysThrPheAspGlu 261
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QY 262 LeuTyrLeuTyrCysTyrTyrValAlaGlyThrValIleLeuMetSerValProValMet 281
Db 700 CTATACCTATATTGTTATTACGTTGCTGTACAGTTGGGTGATGAGTGTCCAAATATG 759
QY 282 GlyIleAlaProGluSerLysAlaThrThrGluSerValTyrAsnAlaAlaLeuAlaLeu 301
Db 760 GGCATCGCACCTCAATCAAGGCAACACAGAGGTATATATAGCAGTTTGGCTTTG 819
QY 302 GlyLeuAlaAsnGlnLeuThrAsnIleLeuArgAspValGlyGluAspAlaArgGly 321
Db 820 GGTATCGCGAATCAACTAACCAACATCTCAGAGATGTCGAGAGATGCCAGAGAGGA 879
QY 322 ArgValTyrLeuProGlnAspGluLeuAlaGlnAlaGlyLeuSerAspGluAspIlePhe 341
Db 880 AGAGTCTACTTACCTCAAGATGAATTAGCACAGGAGGTCTCTCCGACGATGACATATT 939
QY 342 AlaGlyArgValThrAspLysTrpArgAsnPheMetLysLysGlnIleGlnArgAlaArg 361
Db 940 ACTGGAAAGTACTGATATATGAGAGAGCTTTATGAAGAGCAATTCAGAGGGGCAAGA 999
QY 362 LysPheAspGluSerGluLysGlyValThrGluLeuAspSerAlaSerArgTrpPro 381
Db 1000 AAGTTCTTCAATGAGCGAGAGGAGGATGTACAACTAGCTCAGCTACGATGCGCT 1059
QY 382 ValLeuThrAlaLeuLeuTyrArgLysIleLeuAspGluIleGluAlaAsnAspTyr 401
Db 1060 GTATGGGCACTCTTGTGTTACCGCAATATCTCGACGAGATCGAAGCAATGACTAC 1119
QY 402 AsnAspPheThrArgArgAlaTrpValSerLysProLysLysLeuThrLeuProIle 421
Db 1120 ACAACTTCCAAAGAGAGCTTATGTGAGCAATCAAGAGCAATTAATTCCTTACCTATT 1179
QY 422 AlaTyrAlaLysSerLeuValProProAsnArgThr 433
Db 1180 GCTTATGCAAAATCTCTGTGCGCCCTACAGAACT 1215

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RESULT 5

US-09-180-342-2

; Sequence 2, Application US/09180342A

; Patent No. 6239331

; GENERAL INFORMATION:

; APPLICANT: Drake, Caroline R.

; APPLICANT: Bird, Colin R.

; APPLICANT: Schuch, Wolfgang W.

; TITLE OF INVENTION: Enhancement of Gene Expression

; FILE REFERENCE: SE50156

; CURRENT APPLICATION NUMBER: US/09/180,342A

; EARLIER APPLICATION NUMBER: PCT/GB97/01414

; EARLIER FILING DATE: 1997-05-23

; EARLIER APPLICATION NUMBER: UK 9611981.3

; EARLIER FILING DATE: 1996-06-07

; NUMBER OF SEQ ID NOS: 3

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 2

; LENGTH: 1239

; TYPE: DNA

; ORGANISM: Lycopersicon esculentum

US-09-180-342-2

Alignment Scores:

Pred. No.:

Score: 7,1e-196 Length: 1239

Percent Similarity: 86.84% Matches: 344

Best Local Similarity: 79.45% Conservativity: 32

Query Match: 77.09% Mismatches: 33

DB: 4 Indels: 24

Gaps: 3

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Oy		23	LeuLeuAspSerValArgGluGlyAsnArgValPheValSerSerArgPheLeuAlaArg	42
Db		58	TTTTATGAGAGTGTGAGAGAAGTAAATAGATTCTTCACAGTCT	105
Oy		43	AspArgAsnLeuMetTrpAsnGlyArgIleLysGlyGlyArgGlnArgTrpAsnPhe	62
Db		106	CACCGTAACCTTGTTAGTAACAAGCAGTATAAACAGGGGA	144
Oy		63	GlySerLeuIleAlaaspProArgTySerCysLeucllGlySerArgThrGluLysGly	82
Db		145	-----GGAGGTAAACAGACAACACACGGT	168
Oy		83	SerThrPheSerValGlnSerSerLeuValAlaSerProAlaGlyGluMetThrValSer	102
Db		169	AGAAAGTCTCATGTTAGATCAGCAATCCCTTGCAACACCTACGCGTGAGAGAATGTACT	228


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Db 661 CTGAGTCTACTGATGATTAGAGTGAACCGGAGATCCCTCTCCCGGGAATTGAGC 720
QY 142 LeuLeuSerGluAlaTyrAspArgCys 150
Db 721 TTGTAAAGTGAAGCATATGATAGTGT 747
RESULT 10
US-08-095-726-5
; Sequence 5, Application US/08095726
; Patent No. 5530188
; GENERAL INFORMATION:
; APPLICANT: Ausich, Rodney L
; APPLICANT: Brinkhaus, Friedhelm L
; APPLICANT: Mukharji, Indrani
; APPLICANT: Proffitt, John H
; APPLICANT: Yarger, James G
; APPLICANT: Yen, Huel-Che B
; TITLE OF INVENTION: Beta-Carotene Biosynthesis in
; Genetically Engineered Hosts
; NUMBER OF SEQUENCES: 79
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Amoco Corp., Patents and Licensing Dept
; STREET: 200 E Randolph St
; CITY: Chicago
; STATE: IL
; COUNTRY: USA
; ZIP: 60680-0703
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
; SOFTWARE: Patent in Release #1.24
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/095,726
; FILING DATE: 21-JUL-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/785,566
; FILING DATE: 30-OCT-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Galloway, No. 5530188val B
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 3128567180
; TELEFAX: 3128564972
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1198 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-095-726-5
Alignment Scores:
Pred. No.: 4 65e-33 Length: 1198
Score: 364.00 Matches: 95
Percent Similarity: 50.53% Conservative: 49
Best Local Similarity: 33.33% Mismatches: 124
Query Match: 16.04% Indels: 18
DB: 1 Gaps: 4
US-09-847-081B-2 (1-440) x US-08-095-726-5 (1-1198)
QY 148 AspArgCysGlyGluValCysAlaGluTyrAlaLysThrPheTyrLeuGlyThrLysLeu 167
Db 37 GACCACCCAGCAGACCATGGCTCGAAAAGTTTCCACCGCTGGGAGCTG 96
QY 168 MetThrProGluArgArgAlaIleThrPalaIleTyrValThrPysArgThrAsp 187
Db 97 TTCGACCCGCCACCGCGGTAGCTGTCTACACCTGGTGGCCGCTGCGAT 156
QY 188 GluLeuValAspGlyProAsn-----AlaSerHisIleThr 199
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Db 157 GACGTCATTGACGACCCAGACCCAGCGCTTCGCCAGCAGCGCGCGGAGGAGAGGCC 216
QY 200 ProGlnAlaLeuAspArgTyrPheGluThrArgLeuGluAspIlePheSerGlyArgProPhe 219
Db 217 ACCCAGCGCTGGCGCGCTGCGCACGCTGACCTGCGCGGCTTTGAAGGCGCGAGATG 276
QY 220 ---AspMetLeuAspAlaAlaLeuSerAspThrValSerArgPheProValAspIleGln 238
Db 277 CAGGATCCGGCGCTTCGCTGCTTTCAGGAGGTGGCGCTGACCCACGGTATTATACCCCGC 336
QY 239 PropheArgAspMetIleGluGlyMetArgMetAspLeuTyrPysSerArgTyrLysThr 258
Db 337 ATGGCGCTCGATCACCTCGACGCGCTTTCGATGAGCGTGGCTGCTGATGATGCGC 396
QY 259 PheAspLeuLeuTyrLeuTyrCysTyrValAlaGlyThrValGlyLeuMetSerVal 278
Db 397 TTTGAGGATACGCTGCGCTACTGCTATCACGTGGCGCGCTGGTGGTCTGATGATGCGC 456
QY 279 ProValMetGlyIleAlaProGluSerLysAlaThrThrGluSerValTyrAsnAlaAla 298
Db 457 AGGTGATGGCGTG-----CGGATGAGCGGCTGCTGGATCGCGCC 498
QY 299 LeuAlaLeuGlyLeuAlaAsnGlnLeuThrAsnIleLeuArgaspValGlyGluAspAla 318
Db 499 TGGGATCTGGGCTGGCTTCCAGCTCCAGATATGCCCCGGGATATTATTGAGATGCG 558
QY 319 ArgArgGlyArgValTyrLeuProGlnAspLeuAlaGlnAlaGlyLeuSerAspGlu 338
Db 559 GCTATTGACCGCTGCTATCTGCGCGCGAGCTGGCTGCGAGGATGCGGCGTGGCGCGGAG 618
QY 339 AspIlePheAla-GlyArgValThrAspLysTyrPheAsnPheMetLysGlnIleGln 358
Db 619 AACTATGCCCGCGGGAGAAATCGCCCGCGCTGGCGCG-TGG---CGGAGGCTTATTGA 674
QY 358 nArgAlaArgLysPhePheAspGluSerGluLysGlyValThrGluLeuLeuSerAlaSe 378
Db 675 TGCCGAGACCGCTACTACATCTCTCCAGCGCGCTACACGATCTGCGCGCGCGCTC 734
QY 378 rArgTyrProValLeuThrAlaLeuLeuTyrArgLysIleLeuAspGluIleGluAl 398
Db 735 CGCGTGGCGGATCGCCACCGCGCGAGCTACCGCGAGATCGGTATTAAAGTAAAGC 794
QY 398 aAsnAspTyrAsnAsnPheThrArgAlaTyrValSerLysProLysLysLeuLeuTh 418
Db 795 GCGCGGAGGCGCGCTGGATCGCCCGCAGCACACCAAGAGGTGAAAAAATTGCCAT 854
QY 418 rLeuProIleAla 422
Db 855 GCTGATGGCGCA 867
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RESULT 11
US-08-096-043-5
; Sequence 5, Application US/08096043
; Patent No. 5530189
; GENERAL INFORMATION:
; APPLICANT: Ausich, Rodney L
; APPLICANT: Brinkhaus, Friedhelm L
; APPLICANT: Mukharji, Indrani
; APPLICANT: Proffitt, John H
; APPLICANT: Yarger, James G
; APPLICANT: Yen, Huel-Che B
; TITLE OF INVENTION: Lycopene Biosynthesis in
; Genetically Engineered Hosts
; NUMBER OF SEQUENCES: 70
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Amoco Corp., Patents and Licensing Dept
; STREET: 200 E Randolph St
; CITY: Chicago
; STATE: IL
; COUNTRY: USA
; ZIP: 60680-0703
; COMPUTER READABLE FORM:
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; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.24
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/096,043
; FILING DATE: 22-JUL-1993
; CLASSIFICATION: 435
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: US 07/785,568
; FILING DATE: 30-OCT-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Galloway, No. 5530189val B
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 3128567180
; TELEFAX: 3128564972
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1198 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; PS-08-096-043-5

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Best Local Similarity: 33.33%
Query Match: 16.04%
DB: 1
Mismatches: 124
Indels: 18
Gaps: 4
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US-09-847-081B-2 (1-440) x US-08-093-577-5 (1-1198)

Qy	148	AspArgCysGlyGluValCysAlaGluTyrAlaLysThrPheTyrLeuGlyThrLysLeu	167
Db	37	GACCACGCCACGACACCATGGCCAAACGGCTCGAAAGTTTTCGCCACCGCTCGCAAGCTG	96
Qy	168	MetThrProGluArgArgAlaIleTtpAlaIleTyrValTrpCysArgThrAsp	187
Db	97	TTGACCCGGCCACCGCGCTAGCTGCTGATGCTCTACACTGTGTGCCGCACATGCGAT	156
Qy	188	GluLeuValAspGlyProAsn	199
Db	157	GACGTCAATGACGACGACCCACGCGCTTCGCCAGGAGCGCGCGGAGGAGGAGGCC	216
Qy	200	ProGlnAlaLeuAspArgTrpGluThrArgLeuGluAspIlePheSerGlyArgProPhe	219
Db	217	ACCACGCGCTCGCGCGGTGGCCACGCTGACCTCGCGCGCTTTGAAGGCGCCGAGATG	276
Qy	220	---AspMetLeuAspAlaLeuSerAspThrValSerArgPheProValAspIleGln	238
Db	277	CAGGATCCGCGCTTCGCTGCTTCAGGAGGTGGCGCTGACCCACGGTATTACGCCCGCG	336
Qy	239	ProPheArgAspMetIleGluGlyMetArgMetAspLeuTrpLysSerArgTyrLysThr	258
Db	337	ATGGCGCTCGATCACTCGACGCGCTTGGGATGGAGCTGGCTCAGACCCGGTATGTCCAC	396
Qy	259	PheAspGluLeuTyrLeuTyrCysTyrTyrValAlaGlyThrValGlyLeuMetSerVal	278
Db	397	TTTGAGGATACGCTGGCTACTCTATACGTGGCGGGGTGGTGGGTCTGATGATGGCC	456
Qy	279	ProValMetGlyIleAlaProGluSerLysAlaThrThrGluSerValTyrAsnAlaIle	298
Db	457	AGGTGATGGCGCTG-----CGGGATGAGCGGCTGCTGGATCGCGCC	498
Qy	299	LeuAlaLeuGlyLeuAlaAsnGlnLeuThrAsnIleLeuArgAspValGlyGluAspAla	318
Db	499	TGGCATCTGGGGCTGGCTTCCAGCTGACGAATATGGCCGGGATATTATTACGATGCG	558
Qy	319	ArgArgGlyValTyrLeuProGlnAspGluLeuAlaGlnAlaGlyLeuSerAspGlu	338
Db	559	GCTATTACCGCTGCTATCTGCGCGCGGAGTGCTCGCAGATGCCGGCTGCCCGCGAG	618
Qy	339	AspIlePheAla-GlyArgValThrAspLysTrpArgAsnPheMetLysLysGlnIleG	358
Db	619	AACATATCCCGCGGGAGATACCCCGCGCTGGCGCG--TGG--CGGAGGCTATTATGA	674
Qy	358	naArgAlaArgLysPheAspGluSerGluLysGlyValThrGluLeuAspSerAlaSe	378
Db	675	TGCGCAGACCGCTACTACATCTCTCCAGCGCGGCTACAGATCTCGCGGGCGCTC	734
Qy	378	rArgTrpProValLeuThrAlaLeuLeuLeuTyrArgLysIleLeuAspGluIleGluAl	398
Db	735	CGCGTGGCGCATGCCACCGCCGCGAGCGTCTACCGGGAGATCGGTATTAAAGGTAAAGC	794
Qy	398	aAsnAspTyrAsnAsnPheThrArgArgAlaTyrValSerLysProLysLysLeuLeu	418
Db	795	GGCGGGAGGACGCGCTGGGATCGCGCCAGCACCACCGAAAGGTGAATAATTCCT	854
Qy	418	rLeuProIleAla	422
Db	855	GCTGATGGCGCA	867

RESULT 13

RESULT 13
US-08-096-623A-5

; Sequence 5, Application US/08096623A

; Patent No. 5684238

GENERAL INFORMATION:

APPLICANT: Ausich, Rodney L.

APPLICANT: Brinkhaus, Friedhelm L.

APPLICANT: Mukharji, Indrani
 APPLICANT: Proffitt, John H.
 APPLICANT: Yarger, James G.
 APPLICANT: Yen, Hwei-Che B.
 TITLE OF INVENTION: Biosynthesis of Zeaxanthin and
 Title of Invention: Glycosylated Zeaxanthin in Genetically Engineered Hosts
 NUMBER OF SEQUENCES: 104
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: Welsh & Katz, Ltd.
 STREET: 120 S. Riverside Plaza, 22nd Floor
 CITY: Chicago
 STATE: IL
 COUNTRY: USA
 ZIP: 60606

Alignment Scores:	
Pred. NO.:	4.65e-33
Score:	364.00
Length:	1198
Percent Similarity:	50.53%
Matches:	95
Best Local Similarity:	33.33%
Conservative:	49
Mismatches:	124
Query Match:	16.04%
Indels:	18
DB:	1
Gaps:	4

US-09-847-081B-2 (1-440) x US-08-095-623A-5 (1-1198)

QY 148 AspArgCysGlyGluValCysAlaGluTyrAlaLysThrPheTyrLeuGlyThrLysLeu 167

Qy 168 MetThrProGluArgArgAlaIleltpAlaIleltyrValtTpcysArgArgThrasp 187

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Db 97 TTCAGCCGCCACCCCGCTAGCTGCTGATGCTCTACACCTGGTGGCCCGCCACTCGCAT 156
QY 188 GluLeuValAspGlyProAsn-----alaserHisIleThr 199
Db 157 GAGCTCATTCAGCAGCAGACCCAGCGCTTCGCCAGCGAGGCCCGCGGAGGAGGCC 216
QY 200 ProGluAlaLeuAspArgTrpGluThrArgLeuGluAspIlePheSerGlyArgProPhe 219
Db 217 ACCAGCGCTGCCCGCTGCGCAGCTGACCTCGCGCGCTTGAAGGGCCGAGATG 276
QY 220 ---AspMetLeuAspAlaLeuSerAspThrValSerArgPheProValAspIleGln 238
Db 277 CAGGATCCGCGCTTCGCTTCAGAGGTGGCGCTGACCCACCGTATTACGCCCGCC 336
QY 239 PropheArgAspMetIleGluGlyMetArgMetAspLeuTrpLysSerArgTrpLysThr 258
Db 337 ATGCGCTCGATCAGCTCAGCGCTTGGCATGGAGCTGCTCAGACCCCGGTATGTCACG 396
QY 259 PheAspGluLeuTrpLysCysTrpValAlaGlyThrValGlyLeuMetSerVal 278
Db 397 TTTGAGATACGCTGCTACTCTATCAGTGGCGGGCTGTGGTGTGATGGCC 456
QY 279 ProValMetGlyIleAlaProGluSerLysAlaThrThrGluSerValTrpAsnAlaLa 298
Db 457 AGGTGATGGCGCTG-----CGGGATGAGCGGCTGCTGGATCGGCC 498
QY 299 LeuAlaLeuGlyLeuAlaAsnGlnLeuThrAsnIleLeuArgAspValGlyGluAspAla 318
Db 499 TGGGATCTGGGCTGCTTCAGCTGACGATATGCGCGGATATTTAGCATGCG 558
QY 319 ArgArgGlyArgValTrpLeuProGlnAspGluLeuAlaGlnAlaGlyLeuSerAspGlu 338
Db 559 GCTATTGACCGCTGCTATCTGCGCGCGGTGGCTGAGTACCGCGGCTGGCCCGAG 618
QY 339 AspIlePheAla-GlyArgValThrAspLysTrpArgAsnPheMetLysLysGlnIleG 358
Db 619 AACTATGCGCGGGGAGATGCTCCAGCTGACGATATGCGCGGATATTTAGCATGCG 674
QY 358 ArgAlaArgLysPheAspGluSerGluLysGlyValThrGluLeuAspSerAlaSe 378
Db 675 TGGCGGAGAGCGCTACTACTCTCTCCAGCGCGGCTACAGATCTGCGCGCGCTC 734
QY 378 ArgTrpProValLeuThrAlaLeuLeuLeuTrpArgLysIleLeuAspGluIleGlu 398
Db 735 CGGCTGGGCGATGCCCGCGCGCTGCTACCGGGAGATCGGTATTAAGTAAAGC 794
QY 398 AsnAspTrpAsnAsnPheThrArgArgAlaTrpValSerLysProLysLysLeuLeuTh 418
Db 795 GCGGGAGGCGCGCTGGATCGCGCGCCAGCACACCCAGCAGAGTGAATAATGCCAT 854
QY 418 rLeuProIleAla 422
Db 855 GCTGATGGCGGCA 867
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RESULT 14

US-08-331-004A-1

Sequence 1, Application US/08331004A

Patent No. 5618988

GENERAL INFORMATION:

APPLICANT: Hauptmann, Randal
APPLICANT: Eschenfeldt, William H
APPLICANT: English, Jami
APPLICANT: Brinkhaus, Friedhelm L
TITLE OF INVENTION: Enhanced Carotenoid Accumulation
TITLE OF INVENTION: In Storage Organs of Genetically
TITLE OF INVENTION: Engineered Plants
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:

ADDRESSEE: Amoco Corporation, Law Dept
STREET: 55 Shuman Boulevard, Suite 600
CITY: Naperville
STATE: IL
COUNTRY: USA

ZIP: 60563-8437
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/331,004A
FILING DATE:

CLASSIFICATION: 800

ATTORNEY/AGENT INFORMATION:

NAME: Galloway, No. 5618988val B

TELECOMMUNICATION INFORMATION:

TELEPHONE: 708/7172447

TELEFAX: 708/7172430

INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:

LENGTH: 1083 base pairs

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: DNA (genomic)

US-08-331-004A-1

Alignment Scores:

Pred. No.: 7,77e-33

Score: 361.50

Percent Similarity: 50.18%

Best Local Similarity: 33.33%

Query Match: 15.93%

Indels: 17

Gaps: 3

US-09-847-081B-2 (1-440) x US-08-331-004A-1 (1-1083)

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QY 148 AspArgCysGlyGluValCysAlaGluTyrAlaLysThrPheTyrLeuGlyThrLysLeu 167
Db 24 GACCAGCCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAG 83
QY 168 MetThrProGluArgArgArgAlaIleTrpAlaIleTyrValTrpCysArgTrpAsp 187
Db 84 TTGACCCCGCCCGCCCGCTAGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 143
QY 188 GluLeuValAspGlyProAsn-----AlaSerHisIleThr 199
Db 144 GAGCTCATTCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAG 203
QY 200 ProGlnAlaLeuAspArgTrpGluThrArgLeuGluAspIlePheSerGlyArgProPhe 219
Db 204 ACCAGCGCTGCCCGCTGCGCAGCTGACCTGCGCGCGCTTGAAGGGCCGAGATG 263
QY 220 ---AspMetLeuAspAlaLeuSerAspThrValSerArgPheProValAspIleGln 238
Db 264 CAGGATCCGCGCTTCGCTTCAGAGGTGGCGCTGACCCACCGTATTACGCCCGCC 323
QY 239 PropheArgAspMetIleGluGlyMetArgMetAspLeuTrpLysSerArgTrpLysThr 258
Db 324 ATGGCGCTGCTCAGCTCAGCGCTTGGCATGGAGCTGCTCAGACCCCGCTATGTCACC 383
QY 259 PheAspGluLeuTrpLysCysTrpValAlaGlyThrValGlyLeuMetSerVal 278
Db 384 TTTGAGATACGCTGCTACTCTATCAGTGGCGGGCTGTGGTGTGATGGATGCC 443
QY 279 ProValMetGlyIleAlaProGluSerLysAlaThrThrGluSerValTrpAsnAlaLa 298
Db 444 AGGTGATGGCGCTG-----CGGGATGAGCGGCTGCTGGATCGGCC 485
QY 299 LeuAlaLeuGlyLeuAlaAsnGlnLeuThrAsnIleLeuArgAspValGlyGluAspAla 318
Db 486 TGGGATCTGGGCTGCTTCAGCTGACGATATGCGCGGATATTTAGCATGCG 545
QY 319 ArgArgGlyArgValTrpLeuProGlnAspGluLeuAlaGlnAlaGlyLeuSerAspGlu 338
Db 546 GCTATTGACCGCTGCTATCTGCGCGCGGTGGCTGCGAGTGGCTGCGCGCGCTGACCCCGGAG 605
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QY 339 AspIlePheAla-GlyArgValThrAspLysTyrArgAsnPhemMetLysLysGlnIleG1 358
 Db 606 AACATATCGCGCGGAGAAATCGGCGCGCTGGCGGCTGCGG -GAGCGGCTTATTGA 664
 QY 358 nArGAlaArgLysPheAspGluSerGluLysGlyValThrGluLeuAspSerAlase 378
 Db 665 TGCGGAGAGCGGTACTACATCTCTCCAGCGCGGCTACAGCATCTGCGCGCGCGCTG 724
 QY 378 rArgTrrProValLeuThrAlaLeuLeuTyrArgLysIleLeuAspGluIleG1 398
 Db 725 CGCTGGCGGATCGCCACCGCGCGCGCTACCGGGAGATCGGTATTAAAGTAAAGC 784
 QY 398 aAsnAspTyrAsnAsnPhetThrArgAlaTyrValSerLysProLysLysLeuLeuTh 418
 Db 785 GCGGGAGGAGCGCTGGGATCGCGCGCGCGCACACACAGCAAGGTGAAAAATTGCCAT 844
 QY 418 rLeuProIleAla 422
 Db 845 GCTGATGGCGCA 857

RESULT 15

PCT-US95-13937A-1
 : Sequence 1, Application PC/TUS9513937A
 : GENERAL INFORMATION:

: APPLICANT: Hauptmann, Randal
 : APPLICANT: Eschenfeldt, William H
 : APPLICANT: English, Jam
 : APPLICANT: Brinkhaus, Friedhelm L
 : TITLE OF INVENTION: Enhanced Carotenoid Accumulation
 : TITLE OF INVENTION: In Storage Organs of Genetically
 : TITLE OF INVENTION: Engineered Plants
 : NUMBER OF SEQUENCES: 9
 : CORRESPONDENCE ADDRESS:

: ADDRESSEE: Amoco Corporation, Law Dept.
 : STREET: 55 Shuman Boulevard, Suite 600
 : CITY: Naperville
 : STATE: IL
 : COUNTRY: USA

: ZIP: 60563-8437

: COMPUTER READABLE FORM:

: MEDIUM TYPE: Floppy disk

: COMPUTER: IBM PC compatible

: OPERATING SYSTEM: PC-DOS/MS-DOS

: SOFTWARE: Patentin Release #1.24

: CURRENT APPLICATION DATA:

: APPLICATION NUMBER: PCT/US95/13937A

: FILING DATE:

: CLASSIFICATION:

: ATTORNEY/AGENT INFORMATION:

: NAME: Galloway, Norval B

: TELECOMMUNICATION INFORMATION:

: TELEPHONE: 7087172447

: TELEFAX: 7087172430

: INFORMATION FOR SEQ ID NO: 1:

: SEQUENCE CHARACTERISTICS:

: LENGTH: 1083 base pairs

: TYPE: nucleic acid

: STRANDEDNESS: single

: TOPOLOGY: linear

: MOLECULE TYPE: DNA (genomic)

PCT-US95-13937A-1

Alignment Scores:

Pred. NO.: 7,77e-33 Length: 1083
 Score: 361.50 Matches: 95
 Percent Similarity: 50.18% Conservative: 48
 Best Local Similarity: 33.33% Mismatches: 126
 Query Match: 15.93% Indels: 17
 DB: 5 Gaps: 3

US-09-847-081B-2 (1-440) x PCT-US95-13937A-1 (1-1083)

QY 148 AspArgCysGlyGluValCysAlaGluTyrAlaLysThrPheTyrLeuGlyThrLysLeu 167
 Db 24 GACCACGCCACGACACCATGGCCACGGCTCGAAAAAGTTTGGCCACCGCTGCGCAAGCTG 83
 QY 168 MetThrProGluArgArgAlaIleThrAlaIleTyrValTrrPcysArgArgThrAsp 187
 Db 84 TTCAGACCCGCGCCACCGCGCTGCTGCTACACCTGGTGGTGGCTGCTGCTGCTGCTG 143
 QY 188 GluLeuValAspGlyProAsn-----AlaSerHisIleThr 199
 Db 144 GAGCTCATTCACACACACACCGCGCTTCGCCACGAGCGCGCGCGGAGGAGGAGGCC 203
 QY 200 ProGlnAlaLeuAspArgTrrPgluThrArgLeuGluAspIlePheSerArgArgProPhe 219
 Db 204 ACCAGCGCTGCGCGCGCTGCGCACCTGACCGCTGCGCGCTTTGAAGGGCGGAGATG 263
 QY 220 ---AspMetLeuAspAlaAlaLeuSerAspThrValSerArgPheProValAspIleGln 238
 Db 264 CAGGATCCGCGCTTCGCTGCTTTTACAGAGGTGGCGCTGACCCACGGTATTACCCCGCC 323
 QY 239 PropheArgAspMetIleGluGlyMetArgMetAspLeuTrrPcysSerArgTrrLysThr 258
 Db 324 ATGGCGCTCGATCACCTCGACGGCTTTCGATGCGACGTGGCTCAGACCGCGCTATGTACC 383
 QY 259 PheAspGluLeuTrrLysTyrCysTyrTrrValAlaGlyThrValGlyLeuMetSerVal 278
 Db 384 TTTGAGGATACGCTGCGCTACTGCTATCAGCTGCGCGCGCTGGTGGTCTCATGTGCGC 443
 QY 279 ProValMetGlyIleAlaProGluSerLysAlaThrThrGluSerValTrrAsnAla 298
 Db 444 AGGGTATGGCGCT-----CGGATGAGCGGCTGCTGGATCGCGCC 485
 QY 299 LeuAlaLeuGlyLeuAlaAsnGlnLeuThrAsnIleLeuArgAspValGlyGluAspAla 318
 Db 486 TGGATCTGGGCTGGCTTCCAGCTCAGCATATCCCGGGATATATTGACGATGCG 545
 QY 319 ArgArgGlyArgValTrrLeuProGlnAspGluLeuAlaGlnAlaGlyLeuSerAspGlu 338
 Db 546 GCTATTGACCGCTCTATCTGCGCGCGAGTGGCTGCAGGATGCGCGCTGACCCCGGAG 605
 QY 339 AspIlePheAla-GlyArgValThrAspLysTrrArgAsnPhemMetLysLysGlnIleG1 358
 Db 606 AACTATCCCGCGGGAGAAATCGGCGCGCTGCGCGGGTGGCG -GAGCGGCTTATTGA 664
 QY 358 nArGAlaArgLysPheAspGluSerGluLysGlyValThrGluLeuAspSerAlase 378
 Db 665 TGCGGAGAGCGGTACTACATCTCTCCAGCGCGGCTACACCATCTGCGCGCGCGCTG 724
 QY 378 rArgTrrProValLeuThrAlaLeuLeuTyrArgLysIleLeuAspGluIleG1 398
 Db 725 CGCTGGCGGATCGCCACCGCGCGCGCTACCGGGAGATCGGTATTAAAGTAAAGC 784
 QY 398 aAsnAspTyrAsnAsnPhetThrArgAlaTyrValSerLysProLysLysLeuLeuTh 418
 Db 785 GCGGGAGGAGCGCGCTGGATCGCGCGCGCACACACAGCAAGGTGAAAAATTGCCAT 844
 QY 418 rLeuProIleAla 422
 Db 845 GCTGATGGCGCA 857

Search completed: April 5, 2003, 04:28:20
 Job time : 88 secs